REMARKS

I. Status of the Claims

Claims 1, 4, 5 and 7-24 stand rejected. Claims 2, 3, 6, 7 and 9 are canceled and claim 1 has been amended herein.

Claim 1 has been amended to incorporate the elements of claims 7 and 9, and now recites, *inter alia*, "... and the percentage of the high density polyethylene copolymer is about 10 to about 90% of the blend." Support for this amendment may be found in the published specification and as-filed claims. See, for example, paragraph [0035] of the specification and the claims. Applicants submit that the above amendments raise no issues of new matter.

II. Rejection under 35 U.S.C. § 102(b)

The Examiner continues to reject claims 1, 4, 5 and 7-24 as being anticipated by U.S. Patent No. 6,245,272 ("Takita"), as evidenced by the Concise Encyclopedia of Polymer Science and Engineering ("Encyclopedia"). *Office Action* at pp. 2-7. Claims 2, 3 and 9 were previously canceled, and claims 7 and 8 have been canceled by this amendment. The Examiner admits that "Takita is silent about the specific ranges of the claimed elements, [but argues that] Takita reasonably anticipates the ranges" because one of skill in the art could routinely optimize such ranges and arrive at the same the end use. *Id.* at p. 6. Applicants respectfully disagree, and traverse this rejection for the reasons of record and for the following additional reasons.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 (8th ed. Sept. 2007 Rev.) (quoting *Verdegaal Bros. v. Union Oil Co. of California*,

814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)) (emphasis added). In addition, "prior art which teaches a value or range that is very close to, but does not overlap or touch, the claimed range does not anticipate the claimed range." M.P.E.P. § 2131.03(III) (emphasis added). To anticipate the claims, Takita must teach each and every element of the claims and disclose any amounts, ranges, and/or ratios that overlap or fall within the scope of the claimed amounts, ranges, and/or ratios. Furthermore, Takita must clearly and unequivocally disclose the claimed composition to one of ordinary skill in the art "without any need for picking, choosing, and combining various disclosures." *In re Arkley*, 455 F.2d 586, 587, 172 U.S.P.Q. 524, 526 (C.C.P.A. 1972) (emphasis added). In other words, one of skill in the art must be able to "at once envisage" the invention as claimed. *See* M.P.E.P. § 2131.02.

By the Examiner's own admissions, Takita fails to meet these requirements. For example, Takita does not disclose the α-olefin comonomer content of a HDPE copolymer, the melt index, the viscosity average molecular weight, the molecular weight of the blend, or the total α-olefin content of the blend as claimed. As noted, the Examiner continues to admit that Takita is silent with respect to the above elements. *Office Action* at p. 3. Moreover, Takita does not disclose the recited film rupture or fusing temperatures or percentage of HDPE copolymer as currently claimed.

Takita does not disclose at least 7 elements as claimed, nor provide any guidance for selecting a microporous polyethylene film containing the specific ranges as claimed. Therefore, Takita does not disclose each and every element of the claims. For at least these reasons, Takita does not explicitly describe each and every element of the claims.

Insofar as the Examiner is basing a portion of his anticipation argument on the assertion that Takita inherently possesses a range of viscosity average molecular weights, Applicants submit that the Examiner has not met the burden necessary to establish inherency. Specifically, to inherently anticipate, the law requires the Examiner to show that the claimed limitations are necessarily present in Takita. M.P.E.P. § 2112. However, the Examiner's rejection appears to be based on what might result if certain parameters of the prior art were optimized and not on what is necessarily present. *Id.*

The Federal Circuit has rejected this approach and held that "[i]nherency . . . may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Rijckaert,* 9 F.3d 1531, 1534 (Fed. Cir. 1993) (emphasis added); M.P.E.P. § 2112 ("[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.") (emphasis added).

Given the plain and clear absence (by admission) of the claimed elements within Takita, the Examiner seeks to rely upon the Encyclopedia to remedy the deficiency. The Encyclopedia merely states that HDPE molecules contain a small number of chain branches that are introduced by copolymerizing ethylene with α-olefins. *Encyclopedia* at p. 354. However, the Encyclopedia provides no disclosure or reference to any "working properties" of a microporous film having the claimed film rupture and fusing temperatures, much less copolymers of a blend having the claimed α-olefin content and percentage of copolymer. Given that the Encyclopedia fails to provide any guidance or disclosure of the admittedly absent elements within Takita, one of ordinary skill in the art

would have no reason to believe (or any evidence) that the microporous films of Takita would possess the same properties as that of the claimed invention.

For at least the above reasons, Applicants submit that the present claims are not anticipated by Takita and/or the Encyclopedia and respectfully request that this rejection be withdrawn.

III. Rejection under 35 U.S.C. § 103(a)

The Examiner continues to reject claims 1, 4, 5 and 7-24 as being obvious over U.S. Patent No. 6,245,272 ("Takita"), as evidenced by the Concise Encyclopedia of Polymer Science and Engineering ("Encyclopedia"). *Office Action* at pp. 2-7. The Examiner alleges that Takita teaches "workable" ranges of molecular weights and related properties, which can be routinely optimized by one of skill in the art because Takita teaches a product for the same end use. *Id.* at p. 6. In addition, the Examiner contends that the Declaration under 37 C.F.R. § 1.132 submitted by Masahiro Ohashi with Applicants' last response provides results that appear to confirm an optimization of Takita's invention. *Id.* Applicants disagree for at least the reasons of record and for the following additional reasons.

The standards for an obviousness analysis are set forth in *Graham v. John Deere,* 383 U.S. 1, 148 U.S.P.Q. 459 (1996). The four factual inquires established by the Court in *Graham* are as follows:

(A) Determining the scope and content of the prior art;

(B) Ascertaining the differences between the prior art and the claims in issue;

(C) Resolving the level of ordinary skill in the pertinent art; and

(D) Evaluating evidence of secondary considerations.

After resolving the four inquiries, the key to supporting any rejection under § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court instructs that "[t]o facilitate review, this analysis [of whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue] should be made explicit." *KSR Int'l Co. v. Teleflex Inc., et al.*, 127 S. Ct. 1727, 1741, 82 U.S.P.Q.2d 1385, 1396 (2007) (citing *In re Kahn*, 441 F.3d 977, 988, 78 U.S.P.Q.2d 1329, 1336 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.")); *see also* M.P.E.P. § 2141(III).

Furthermore, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" at the time the invention was made. M.P.E.P. §2143.01(III) (emphasis in original, citation omitted). Moreover, "[i]n determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious." M.P.E.P. § 2141.02(I) (emphasis in original, citations omitted).

The cited references relied upon by the Examiner fail to meet these standards. As discussed above, Takita is silent about the recited α-olefin comonomer content of a HDPE copolymer, the melt index, the viscosity average molecular weight, the molecular weight of the blend, the total α-olefin content and percentage of copolymer. In addition, Takita provides no insight as to why the α-olefin comonomer content of a HDPE

copolymer or the percentage of the HDPE copolymer would be relevant to improving the overall properties of microporous films.

The Encyclopedia fails to cure these deficiencies, for example, by providing the skilled artisan with evidence/reasons why one of ordinary skill would combine Takita with the Encyclopedia to get predictable results. The Encyclopedia provides at best a general statement that HDPE copolymers always contain a small number of branches that are introduced by copolymerization of ethylene with α-olefins. However, the Encyclopedia provides no insight or guidance as to how or why a specific α-olefin range and a specific percentage of an HDPE copolymer in a blend would be useful to obtain certain overall properties, much less the properties as claimed. Moreover, the Encyclopedia provides no teaching or suggestion that would allow the skilled artisan to believe that even if, *arguendo*, one of skill in the art did incorporate an HDPE copolymer in the recited range and containing an amount of α-olefins into a microporous film, that the properties as claimed would have been predictable. Therefore, the Encyclopedia does not remedy the deficiency and one of skill in the art would not have been able to predict the currently claimed properties.

The Examiner has failed to provide any evidence explaining why one of ordinary skill in the art would specifically control the α-olefin comonomer content of an HDPE described in the Encyclopedia, and then utilize a certain amount in Takita's blend to arrive at the claimed invention. The Examiner has merely noted that Takita's generic blend can be routinely optimized in view of the Encyclopedia so as to exhibit the properties of the claimed invention.

The Court of Appeals for the Federal Circuit ("CAFC") has clearly explained that the USPTO examiners may rely upon what is generally known in the art, but that they **must** provide evidentiary proof of that knowledge. *See In re Zurko*, 59 U.S.P.Q.2d 1693, 1697 (Fed. Cir. 2001) ("With respect to core factual findings in a determination of patentability, however, the Board cannot simply reach conclusions based on its own understanding or expertise . . . Rather, the Board **must point to some concrete evidence** in the record in support of these findings.") (emphasis added). Here, however, the Examiner has not pointed to any evidence in support of his assertions that one skilled in the art would have found it obvious to specifically modify the general blend of Takita's films in an attempt to arrive at the claimed invention. The Office has merely concluded, without evidence, that such is the case. Such reasoning is clearly counter to the CAFC's holding in *Zurko*, contrary to the weight of the evidence of record, and insufficient to establish a *prima facie* case of obviousness.

In addition, Applicants respectfully direct the Examiner's attention to the attached Declaration Under 37 C.F.R. §1.132, of Masahiro Ohashi, in which Applicants' provide data establishing the criticality of the claimed HDPE copolymer range of about 10 to about 90%. This data clearly establishes the criticality of the claimed blend for obtaining good balance of both fusing and film rupture temperatures.

IV. Conclusion

In view of the foregoing amendments and remarks, Applicants request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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